

# 2SK0198 (2SK198)

## Silicon N-channel junction FET

For low-frequency amplification

### ■ Features

- High mutual conductance  $g_m$
- Low-noise characteristics
- Mini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-source voltage	$V_{DS}$	30	V
Drain-gate voltage (Source open)	$V_{DGO}$	30	V
Drain current	$I_D$	20	mA
Gate current	$I_G$	10	mA
Power dissipation	$P_D$	150	mW
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Package

- Code  
Mini3-G1
- Pin Name  
1: Source  
2: Drain  
3: Gate

### ■ Marking Symbol: 10

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

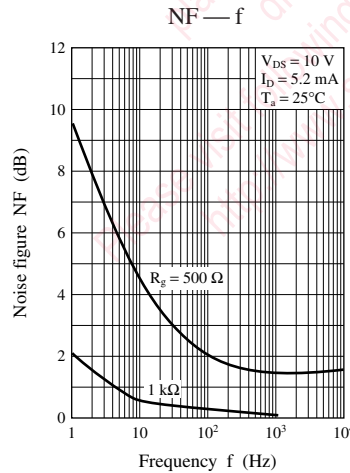
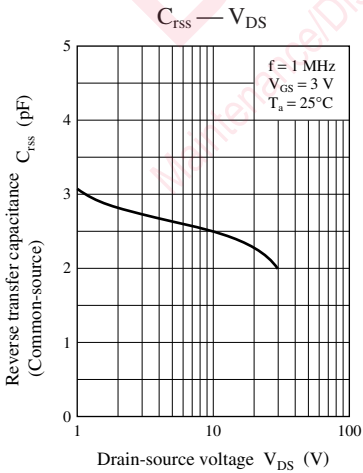
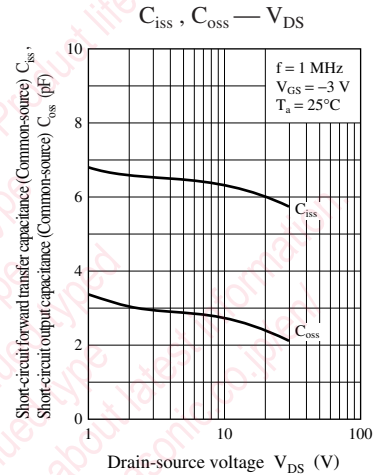
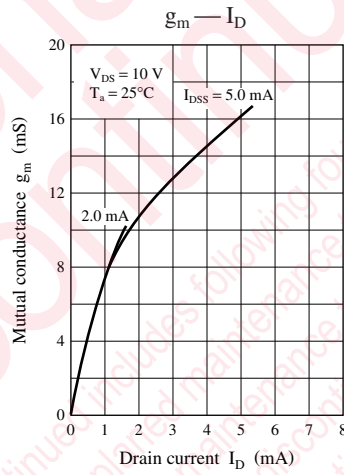
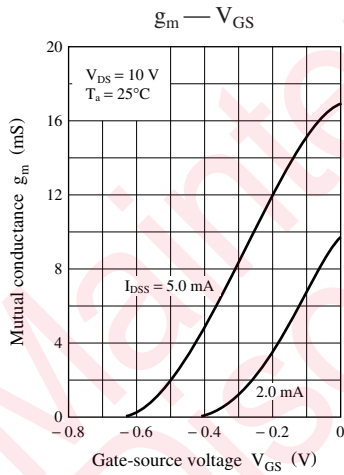
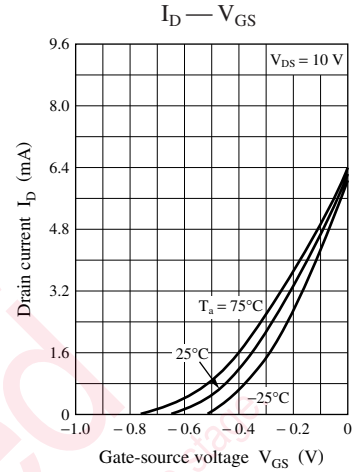
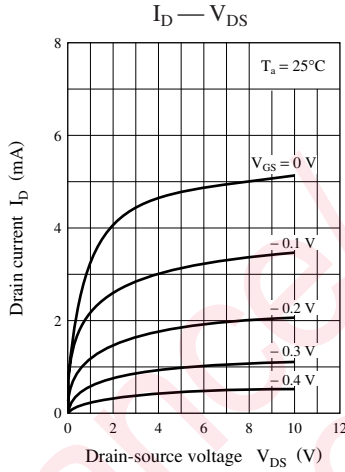
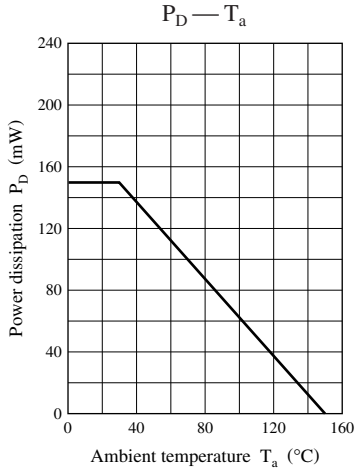
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain-source current *	$I_{DSS}$	$V_{DS} = 10\text{ V}, V_{GS} = 0$	0.5		12	mA
Gate-source cutoff current	$I_{GSS}$	$V_{GS} = -30\text{ V}, V_{DS} = 0$			100	nA
Gate-source cutoff voltage	$V_{GSC}$	$V_{DS} = 10\text{ V}, I_D = 10\ \mu\text{A}$	0.1		1.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10\text{ V}, I_D = 0.5\text{ mA}, f = 1\text{ kHz}$	4			mS
		$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ kHz}$	4			
Short-circuit forward transfer capacitance (Common source)	$C_{iss}$	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$		14		pF
Reverse transfer capacitance (Common source)	$C_{rss}$			3.5		pF
Noise voltage	NV	$V_{DS} = 30\text{ V}, I_D = 1\text{ mA}, G_V = 80\text{ dB}$ $R_g = 100\text{ k}\Omega, \text{Function} = \text{FLAT}$		60		mV

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

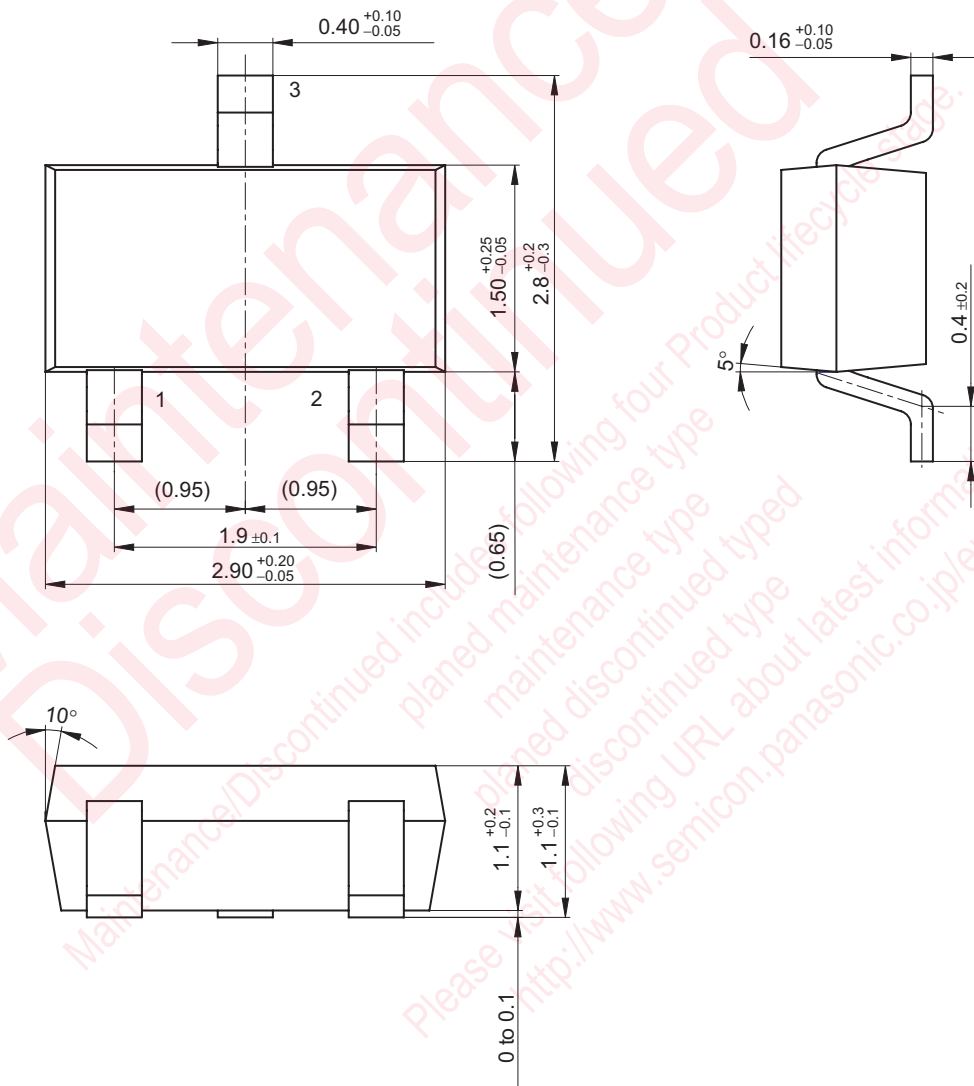
Rank	P	Q	R
$I_{DSS}$ (mA)	0.5 to 3.0	2.0 to 6.0	4.0 to 12.0

Note) The part number in the parenthesis shows conventional part number.



Mini3-G1

Unit: mm



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